

WHAT IS CLAIMED IS:

1. A method for preparing a tablet, comprising the steps of:
forming an aqueous slurry containing a mixture of microcrystalline cellulose in the form of a wet cake and silicon dioxide having a particle size from about 1 nm to about 100 μm ;
drying said slurry to obtain an excipient comprising a plurality of agglomerated particles of microcrystalline cellulose in intimate association with said silicon dioxide, the amount of silicon dioxide being from about 0.1% to about 20% relative to the amount of microcrystalline cellulose, by weight;
mixing an active ingredient with said excipient in a ratio from about 1:99 to about 99:1 to obtain a mixture;
compressing said mixture into a tablet.
2. The method of claim 1, wherein said silicon dioxide is colloidal silicon dioxide, and further comprising wet granulating said mixture prior to compressing said mixture into said tablet.
3. The method of claim 1, wherein said drying is accomplished via spray drying such that the resultant excipient particles have an average particle size from about 10 μm to about 1,000 μm .
4. The method of claim 1, wherein said drying is accomplished via spray drying such that the resultant excipient particles have an average particle size from about 30 μm to about 250 μm .
5. The method of claim 1, wherein the resultant excipient particles have a bulk density from about 0.2 g/ml to about 0.6 g/ml.

6. The method of claim 3, wherein the resultant excipient particles have a bulk density of from about 0.35 g/ml to about 0.55 g/ml.
7. The method of claim 2, further comprising adding a further amount of said excipient to said wet granulated mixture, prior to compressing said mixture into a tablet.
8. The method of claim 1, wherein said drying further comprises drying said slurry such that the resultant excipient particles have a moisture content of from about 0.5 to about 15%.
9. The method of claim 1, wherein said drying further comprises drying said slurry such that the resultant excipient particles have a moisture content of from about 0.5 to about 2.5 %.
10. The method of claim 1, wherein said drying further comprises drying said slurry such that the resultant excipient particles have a moisture content of from about 0.5 to about 1.8%.
11. The method of claim 1, wherein said drying further comprises drying said slurry such that the resultant excipient particles have a moisture content of from about 0.8 to about 1.5%.
12. The method of claim 1, wherein said drying further comprises drying said slurry such that the resultant excipient particles have a moisture content of from about 0.8 to about 1.2%.

13. A method for preparing a pharmaceutical excipient, comprising:

forming an aqueous slurry containing a mixture of microcrystalline cellulose in the form of a wet cake and silicon dioxide having a surface area from about 10 m²/g to about 500 m²/g, wherein said slurry comprises from about 0.5% to about 25% by weight microcrystalline cellulose in the form of a wet cake; and

drying said slurry to obtain an excipient comprising a plurality of agglomerated particles of microcrystalline cellulose in intimate association with said silicon dioxide, the amount of silicon dioxide being from about 0.1% to about 20% relative to the amount of microcrystalline cellulose, by weight.

14. The method of claim 13, wherein said slurry contains from about 15% to about 20% microcrystalline cellulose in the form of a wet cake.

15. The method of claim 13, wherein said slurry contains from about 17% to about 19% microcrystalline cellulose in the form of a wet cake.

16. The method of claim 13, wherein said silicon dioxide is colloidal silicon dioxide.

17. The method of claim 13, wherein said drying further comprises drying the slurry of microcrystalline cellulose and silicon dioxide by a method selected from the group consisting of flash drying, ring drying, spray drying, and micron drying.

18. The method of claim 13, wherein said drying further comprises drying said slurry of microcrystalline cellulose and silicon dioxide by spray drying.

19. The method of claim 13, wherein said drying further comprises drying said slurry such that the resultant excipient particles have an average particle size from about 10 μ m

to about 1,000 μm .

20. The method of claim 13, wherein said drying further comprises drying said slurry such that the resultant excipient particles have a particle size of from about 10 μm to about 500 μm .

21. The method of claim 13, wherein said drying further comprises drying said slurry such that the resultant excipient particles have a moisture content of from about 0.5 to about 15%.

22. The method of claim 13, wherein said drying further comprises drying said slurry such that the resultant excipient particles have a moisture content of from about 0.5 to about 2.5 %.

23. The method of claim 13, wherein said drying further comprises drying said slurry such that the resultant excipient particles have a moisture content of from about 0.5 to about 1.8%.

24. The method of claim 13, wherein said drying further comprises drying said slurry such that the resultant excipient particles have a moisture content of from about 0.8 to about 1.5%.

25. The method of claim 13, wherein said drying further comprises drying said slurry such that the resultant excipient particles have a moisture content of from about 0.8 to about 1.2%.

26. The method of claim 13, wherein said drying further comprises drying said slurry

such that the resultant excipient particles have a particle size of from about 30 μm to about 250 μm .

27. The method of claim 13, wherein said slurry further comprises a member of the group consisting of non-silicon metal oxides, starches, starch derivatives, surfactants, polyalkylene oxides, cellulose, celluloses, celluloses ethers, and mixtures thereof.

28. A method for preparing a pharmaceutical excipient, comprising:

forming an aqueous slurry containing a mixture of microcrystalline cellulose in the form of a wet cake and silicon dioxide having an average primary particle size from about 1 nm to about 100 μm , wherein said slurry comprises from about 0.5% to about 25% by weight microcrystalline cellulose in the form of a wet cake, the solids content of said slurry being from about 0.5% to about 25%, by weight; and,

drying said slurry to obtain an excipient comprising a plurality of agglomerated particles of microcrystalline cellulose in intimate association with said silicon dioxide, the amount of silicon dioxide being from about 0.1% to about 20% relative to the amount of microcrystalline cellulose, by weight.

29. The method of claim 28, wherein said slurry contains from about 15% to about 20% microcrystalline cellulose in the form of a wet cake.

30. The method of claim 28, wherein said slurry contains from about 17% to about 19% microcrystalline cellulose in the form of a wet cake.

31. The method of claim 28, wherein said silicon dioxide is colloidal silicon dioxide.

32. The method of claim 28, wherein said drying further comprises drying the slurry

of microcrystalline cellulose and silicon dioxide by a method selected from the group consisting of flash drying, ring drying, spray drying, and micron drying.

33. The method of claim 13, wherein said drying further comprises drying the slurry by a method selected from the group consisting of flash drying, ring drying, spray drying, fluid bed drying, micron drying, and combinations thereof.

34. The method of claim 1, wherein said drying further comprises drying the slurry by a method selected from the group consisting of flash drying, ring drying, spray drying, fluid bed drying, micron drying, and combinations thereof..

35. The method of claim 28, wherein said drying further comprises drying said slurry such that the resultant excipient particles have a moisture content of from about 0.5 to about 2.5 %.

36. The method of claim 28 wherein said drying further comprises drying said slurry such that the resultant excipient particles have a moisture content of from about 0.5 to about 1.8%.

37. The method of claim 28, wherein said drying further comprises drying said slurry such that the resultant excipient particles have a moisture content of from about 0.8 to about 1.5%.

38. The method of claim 28, wherein said drying further comprises drying said slurry such that the resultant excipient particles have a moisture content of from about 0.8 to about 1.2%.

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